

San Joaquin Valley Unified Air Pollution Control District

PERMIT UNIT: C-1235-2-2

EXPIRATION DATE: 4/30/98

EQUIPMENT DESCRIPTION:

26 MMBTU/HR NATIONAL OIL HEATER #2 WITH NORTH AMERICAN MODEL 5131HCRF BURNER. ANNUAL HEAT INPUT < 90,000 MMBTU.

Permit Unit Requirements

1. The heat input from use of natural gas and crude oil shall not exceed 90 billion Btu/year. [District Rule 4305]
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The heater shall be tuned at least annually, using one of the procedures described in Attachment 3404-A or 3404-B of District Rule 4304 (adopted October 19, 1995). Records of tune-ups and maintenance shall be maintained. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
4. Emissions from the use of natural gas fuel shall not exceed 0.016 lb NOx/MMBtu, 0.05 lb VOC/MMBtu, 0.013 lb SOx/MMBtu, 0.11 lb CO/MMBtu nor 0.0048 lb PM10/MMBtu. Compliance with Nox and CO emission limits shall be demonstrated by source testing. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Crude oil fuel consumption shall not exceed 2,640 gallons/day. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emissions from the use of crude oil fuel shall not exceed 145.2 lb Nox/day, 0.7 lb VOC/day, 621.7 lb Sox/day (calculated as SO₂), 13.2 lb CO/day, nor 44.9 lb PM10/day. Compliance with PM10, Nox, and CO emission limits shall demonstrated by source testing. [District NSR Rule] Federally Enforceable Through Title V Permit
7. This unit shall be fired on crude oil (sulfur content not to exceed 1.5% by weight) or PUC or FERC regulated natural gas (sulfur content not to exceed 0.017% by weight) only. Permittee shall record crude oil (gal/day) and natural gas fuel consumption and crude oil sulfur content. Copies of all fuel invoices and gas purchase contracts shall be maintained. Records shall be retained for at least five years and provided to the District upon request. [District Rules 2520, 9.4.2, 9.5.2; 4201; 4801] Federally Enforceable Through Title V Permit

8. Particulate matter emissions from the oil heater shall not exceed 0.1 grain per cubic foot of gas at dry standard conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb. PM/hr. Compliance with this requirement shall be shown by firing the unit only on PUC or FERC regulated natural gas or by source testing if firing on crude oil fuel. [District Rules 2520, 9.4.2, 4201, 3.1, 4301, 5.1, 5.2.3] Federally Enforceable Through Title V Permit

9. Initial source testing for PM/PM₁₀ (for crude oil-fired unit only), Nox, and CO shall be performed within 60 days of permit issuance, unless such testing has been performed within the prior 12 month period and the test results showed compliance with emission limits of this permit. Thereafter, source testing shall be performed annually to demonstrate compliance with PM/PM₁₀, Nox, and CO emission limits. Gaseous fuel fired units demonstrating compliance on 2 consecutive annual source tests shall be tested not less than once every 36 months. Annual testing shall resume if any such test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. In lieu of annual source testing of each unit for Nox, CO, and PM/PM₁₀, compliance with emission limits may be demonstrated by submittal of annual source test results to the District from unit(s) representing a group of units, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required Nox, CO, or PM/PM₁₀ emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

11. The following conditions must be met for representative unit(s) used to demonstrate compliance for a group of units: 1) all units are initially source tested and emissions from all units in the group are similar, 2) all units in the group are similar in terms of rated heat input, make and series, operation conditions, fuel used, and control method, 3) the group is owned by a single owner and located at a single stationary source, and 4) all units in the group shall have received the same maintenance and tune-up procedures as the representative unit(s). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. The representative unit source tested to demonstrate compliance shall be rotated, so that when 2 source test cycles have been completed, both units (C-1235-1 and C-1235-2) will have been tested. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. The following methods shall be used for source testing: Nox (EPA Method 7E or ARB Method 100), CO (EPA Method 10 or ARB Method 100), and

PM/PM10 (EPA Methods 201A and 202). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

14. Compliance with Daily Emission Limits (DELs) for crude oil fuel shall be determined by using the arithmetic mean, pursuant to District Rule 1081, of 3 one-hour test runs for PM10; and the arithmetic mean of 3 forty-minute test runs for Nox and CO. This mean shall be multiplied by the appropriate factor to determine compliance with the 24 hour DELs. [District Rule 4305, 5.0, 8.2 and/or 4351, 8.1] Federally Enforceable Through Title V Permit

15. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (as amended December 16, 1993). [District Rule 1081 and Fresno County Rule 108.1] Federally Enforceable Through Title V Permit

16. The oil heater shall not emit in excess of 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO₂). Compliance with this requirement shall be shown by firing the unit on PUC or FERC regulated natural gas or by source testing if firing on crude oil fuel. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit

17. The oil heater shall not emit in excess of 200 pounds per hour of sulfur compounds, calculated as sulfur dioxide (SO₂). Compliance with this requirement shall be shown by firing the unit only on PUC or FERC regulated natural gas or on crude oil fuel not exceeding 1.5% sulfur by weight. [District Rule 4301, 5.2 .1] Federally Enforceable Through Title V Permit

18. Discharge of sulfur compounds from the oil heater shall not exceed in concentration at the point of discharge 0.2 percent by volume calculated as sulfur dioxide (SO₂), on a dry basis averaged over 15 consecutive minutes. Compliance with this requirement shall be shown by firing the unit only on PUC or FERC regulated natural gas or on crude oil fuel not exceeding 1.5% sulfur by weight. [District Rules 2520, 9.4.2; 4801, 3.1] Federally Enforceable Through Title V Permit

19. Crude oil fuel shall be tested monthly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur DEL has been demonstrated for 8 consecutive months, then the fuel testing frequency shall be changed to semi-annual. If a semi-annual fuel content source test fails to show compliance, monthly testing shall resume. The sulfur content of the crude oil being fired in the oil heater shall be determined using ASTM D 4294 (x-ray diffraction method). The fuel higher heating value shall be determined by ASTM D 240-87 or D 2382-88. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Compliance with the Sox DEL using fuel sulfur content testing shall be determined and recorded using the following calculation: (fuel sulfur content as SO₂, lb/MMBtu) X (maximum heat input rating of the unit, MMBtu/hr) X (24 hr/day). [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

21. While firing on crude oil, the permittee shall inspect the heater exhaust stack weekly for excessive visible emissions. The inspection shall include verifying the equipment is performing normal, designed functions and is being operated according to standard procedures, and per the manufacturer's recommendations. If the equipment is not performing according to design and procedures or if excessive visible emissions are observed from the exhaust stack, the permittee shall take corrective action within 24 hours. If excessive visible emission cannot be corrected within 24 hours, EPA Method 9, except for data reduction (section 2.5), shall be conducted to determine compliance with the 20% facility-wide opacity limit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

22. The permittee shall maintain the following records with regards to weekly visible emission/equipment inspections, while firing on crude oil: 1) date and time of inspection, 2) stack or emission point identification, 3) operational status/conditions of the heater, 4) observed results and conclusions, 5) description of corrective actions taken to resolve any observed excessive visible emissions, 6) date and time excessive visible emissions corrected, 7) date of Method 9 test and results if corrected, and 8) name of person(s) performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit